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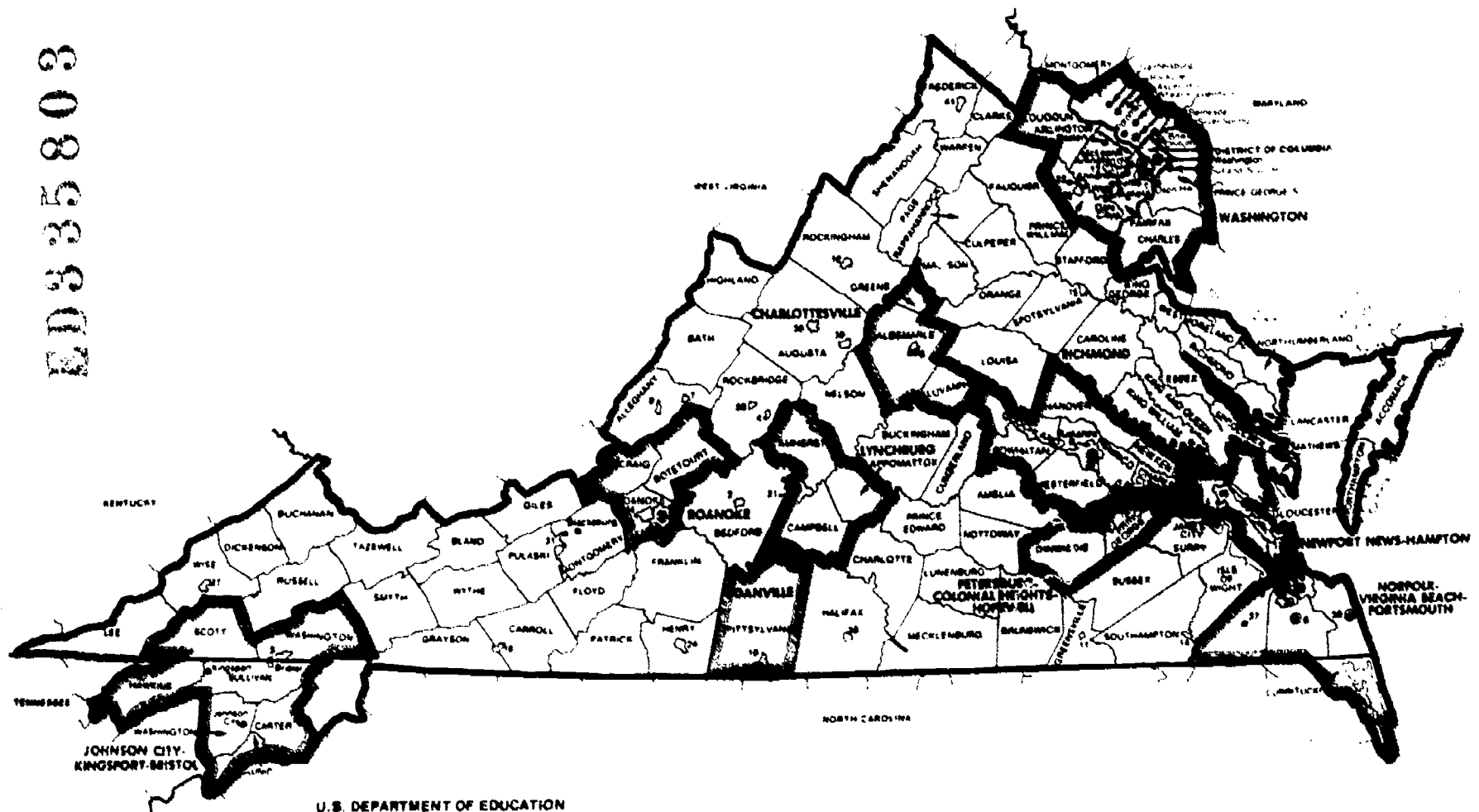
ABSTRACT

A profile of Virginia is presented, which assesses trends in the state's economy, population, and educational system. The state is characterized by a diverse economy, a well-educated suburban middle-class majority, a high level of individual and state wealth, and a high level of work force participation. Problems include rural poverty, lack of minority groups' success, poorly coordinated state services, and regional conflict. A conclusion is that dramatic economic growth necessitates a "pay-as-you-go" taxation and service delivery plan. Recommendations are made to create legislative responsibility for transportation and highway planning; improve "high tech" development; implement equity in educational financing; coordinate higher educational autonomy with state policy; create stable, middle-income jobs; and emphasize education's educational role. Three tables are included. (18 references) (LMI)

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THE STATE AND ITS EDUCATIONAL SYSTEM

BY HAROLD L.
HODGKINSON

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I also need to thank many professional colleagues for their insights into the nature of Virginia's complex education and demographics. However, the selection of information and its interpretation remain the responsibility of the author.

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COVER NOTE:

This "people map" of Virginia shows some interesting things. First, there are no "square" counties in Virginia, as is characteristic of Appalachian states. (Iowa, on the other hand, has almost nothing but square counties.) Second, Virginia's metro areas overlap into Washington, D.C., Maryland, North Carolina and Tennessee, making interstate communication a necessity. Also the "Boswash" corridor is moving deeper into Virginia, soon to include both Fredericksburg and Richmond. The "people maps" are increasingly used by planners, marketers of goods and services, and even educators!

**VIRGINIA:
THE STATE AND
ITS EDUCATIONAL SYSTEM**

HAROLD L. HODGKINSON
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VIRGINIA: THE STATE AND ITS EDUCATIONAL SYSTEM

Probably the most famous statement about Virginia came from deToqueville who said, during the 1830s, that there were two kinds of Americans—"Yankees and Virginians." "The Yankees were moving west," he said, "while the Virginians were moving south." That little comment explains a great deal of the 160 years of history that followed. We can also begin to understand why the aristocratic and hierarchical tradition of old Virginia stayed on so long, and why even today the state is an extension of its past. While it was the state of Thomas Jefferson, George Washington, Patrick Henry, James Madison and George Mason, the most important vestige was the plantation system of organization. This mentality was seen in a strong reverence for the past, for a very intense kinship system of leadership, for rural poverty on the part of small farmers and slaves, for education as a way of enforcing the aristocracy and for political passivity on the part of those not in the ruling group.

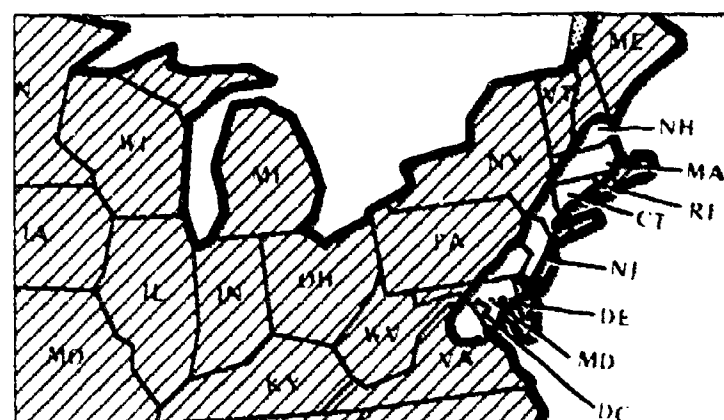
It was only when The New Deal and World War II occurred that Virginia began to turn the corner and rejoin the Union. A remarkable transformation has taken place during the intervening half century—the poll tax, literacy tests and other Jim Crow symbols had all disappeared, along with a rural economy based on cotton and tobacco and a one-party political system. Today's Virginia is the direct result of a dynamic growth pattern, with new people coming to Virginia's urban areas from a wide variety of backgrounds but most with educational and economic achievements that could be contributed to Virginia's growth and prosperity. The state's economy diversified into a number of important areas, including manufacturing as well as the "high end" of the service economy—finance, insurance and real estate. Nowhere can this transformation be seen more clearly than in recent gubernatorial elections—from Charles Robb, a non-native, son-in-law of the notoriously liberal President Lyndon Baines Johnson, one who assiduously courted black voters as well as white, through the almost liberal former Governor Baliles to the election of the first black governor in American history, L. Douglas Wilder.

But many of Virginia's problems are also a result of this tradition. Perhaps most important is the unique tradition of having cities that are independent from the counties in which they reside. Some "cities," like Virginia Beach,

Chesapeake and Suffolk are so big and include so much rural land that they seem to be counties, while Arlington and Fairfax counties are so densely urban they would seem to be cities. In addition, there is a strong independence of the parts of Virginia from the whole—the Tidewater area is very isolated from the Piedmont area, and acts that way. As in the plantation period, loyalties are local and it is hard for Virginia to "get its act together."

Even the county map on our cover suggests the important role that terrain plays in the state's politics. But today's Virginia is one of the largest states in terms of population, with a high level of personal income and a high and increasing level of educational attainment. Even Richmond, unlike most other state capitals, has a thriving economy in addition to state government workers. In addition to the Washington D.C. suburbs, much of Virginia benefits from the large number of federal defense contracts awarded in the state. Suburbanization, of both housing and jobs, has been the largest agenda since World War II. And the major eastern population corridor called "Boswash," housing 43 million people, now begins north of Boston in New Hampshire and runs all the way to Richmond (see map below). One sixth of the U.S. popula-

"BOSWASH"



tion is included in this single area, placing almost half of Virginia in this high density corridor. In the last decade, the traditionally black minority has been supplemented by rapid increases in Hispanic, Asian and more recently

Virginia Profile and State Rank

Population, 1988	5,996,000	Rank 12th
Population Gain, 1980-1988	+12.1%	13th
Migration, 1980-1986	202,000	7th
Projected Population, 2000	6,877,000	12th
Population Density (persons per square mile)	148	17th
Black Adults, 1988	808,000	11th
Hispanic Adults, 1988	74,000	16th
Persons Over Age 65 (as a percent of total population), 1987	10.6%	42nd
Percent of Persons Living in Metro Areas, 1987	71.7%	20th
Number of Lawyers (per 10,000 population), 1985	2.35	28th
Birth Rate (per 1,000 women), 1986	15.0	30th
Births to Teenage Mothers (as a percent of all births)	12.0%	22nd
Births to Unwed Mothers (as a percent of all births)	22.4%	21st
Infant Deaths (per 1,000 births), 1986	11.1	14th
Doctors (per 100,000 population), 1986	202	13th
Average Daily Hospital Room Charges, 1988	\$196	35th
Change in Crime Rate, 1985-1987	+4.8%	29th
Murders (per 100,000 population), 1987	7.8	22nd
Total Prisoners, 1987	13,321	*
Total Prisoners, 1980	8,920	*
Increase in Number of Prisoners, 1980-1987	+67%	*
Workers per Eligibles, 1987	65.3%	12th
Female Labor Force Participation Rate	59%	19th
Increase in Employment, 1980-1987	+24.2%	7th
Percent of Population on Social Security, 1987	13.3%	42nd
Percent of Population on Food Stamps, 1987	5.1%	40th
Gross State Product, 1986	\$104 Billion	11th
Change in GSP, 1980-1986	+77%	6th
Increase in Per Capita Income, 1980-1986	+49%	6th
Business Starts, 1987	5,519	11th
Business Failures (per 10,000 population)	74	31st
Hourly Earnings (manufacturing), 1986	\$8.84	36th
Number of Housing Permits Issued, 1986	73,500	5th
Change in Number of Home Sales, 1986-1987	-13.3%	49th
Retail Sales Per Capita, 1987	\$6,798	16th
Number of Farms, 1987	50,000	18th
Average Farm Size, 1987 (acres)	10	45th
Turkeys Raised, 1987	16.2 million	5th
Amount of Tobacco Grown	76 mill. lbs.	5th
Peanut Products	225,000 lbs.	6th
Total Roads-Street Miles	65,802	32nd
Licensed Drivers (per 1,000 persons) 1986	728	6th
Autos (per 1,000 residents)	663	5th
Vehicle Miles Per Driver	13,137	7th
Workers Using Carpools	25%	3rd

*No ranking for this item.

Source: U.S. Bureau of the Census, *Statistical Abstract of the United States, 1989*.

Middle Eastern people. These populations are locating in many places in Virginia in addition to the Washington suburbs. The Virginia statistical profile on the previous page paints a picture of a complex state.

These numbers form a picture of a large state with a fairly high growth rate during the 1980s, with most of the growth being immigrants rather than higher fertility of existing residents. These immigrants have added greatly to the state's diversity. The density indicates areas that are intensely urban and rural—no comparison here with New Jersey's 1,027 people per square mile! (Even Japan has only 1,000 people per square mile.) There is good reason to believe that during the 1990s, population growth will slow down, with some problems created by the over-enthusiastic building of houses and office buildings with no end to constant growth. Certain areas of Virginia are already seeing the kind of slow or no growth initiatives so common in California in 1989. While Virginia has been a one-minority state, increases in Hispanic, Asian and Middle Eastern groups are high. While the over age 65 population is not high, the growth rate in this age category was quite high. Virginia is no longer a rural-dominated state in terms of the urban location of 70 percent of its residents, and although it seems that Virginia is inundated with lawyers, the rate is actually quite low!

It is surprising that in a state with a large young adult population, the birth rate is so low. This is partly due to the large number of singles and households in which both partners work. Even in a state which is in the middle of the range in terms of births, it is amazing to think that one of every five children born in Virginia is born to parents who are not married. No one wants to face this issue. Health care facilities and personnel are numerous and available at fairly low costs throughout most of the state, although delivery of health services is a problem in western Virginia.

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While crime rates have increased rather slowly in recent years, prison populations have increased almost ten times as fast. The central problem with the strategy of increasing prisoners and jail cells is that this has almost no impact on the crime rate. Over 80 percent of America's prisoners are high school dropouts, and the states with the highest dropout rates are the states highest in prisoners per 100,000 population. Given the fact that a prisoner costs the taxpayer about \$20,000 a year while a college student or Head Start participant costs the taxpayer about \$3,000 a year, it is clear that a better strategy would be to lower the crime rate by increasing the percentage of young adults who enter adult life with a high school diploma.

A high percentage of Virginia's adults are in the work force, and as the population increased during the 1980s, jobs were created in a proportional way. In fact, as in southern California, jobs grew somewhat faster than people during the 1980s. There is a smaller percentage of adults who are dependent because of age or poverty than in the nation as a whole.

The state's economic development during the 1980s was spectacular both in Gross State Product and per capita income. Small businesses were started and in a very high number of cases, survived. Venture capital is becoming a key element of Virginia's growth strategy, and the techniques for developing and using it are increasingly available. One of the reasons Virginia is appealing to businesses is the right-to-work tradition and low hourly wages of manufacturing workers. There is also some reason to think that in the next decade, both immigration and job production will slow somewhat, leaving some rough years for housing and business facilities sales, especially in areas that have become over-optimistically developed.

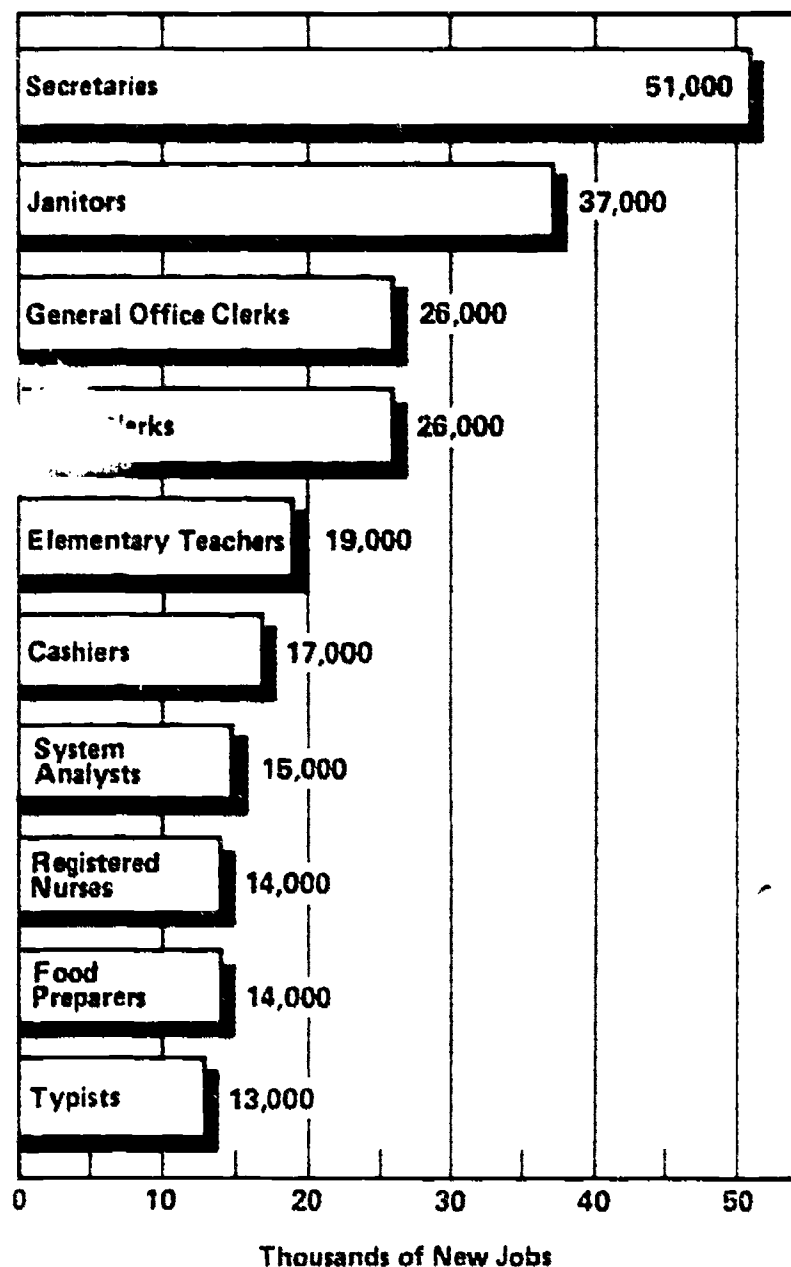
In addition, virtually every state saw its salvation in the attraction of "high-tech" industries during the eighties. The quotation marks are to suggest the immense difficulty in even defining "high tech," given the fact that in Silicon Valley most workers are packers, freight handlers, clerks, cashiers and assemblers. Software developers and programmers are a small part of the total. In Virginia, however, substantial development has occurred in the industry, mostly in the Northern Virginia area but also in central and southeastern Virginia, partly related to the military installations in Norfolk and Virginia Beach and partly to the excellent reputation of Virginia Polytechnic Institute and State University in Blacksburg.

The state has had great difficulty in deciding on a showcase "high tech" center for the state, and compared with Silicon Valley, Boston's Route 128 Corridor and the Research Triangle in North Carolina, the skills in venture capital are yet to be fully developed in Virginia. In addition, the competition between George Mason University and Virginia Polytechnic Institute to be the recipient of the high tech center was probably harmful to both. The competition for skilled scientists and engineers will probably intensify during the next decade, and Governor Wilder may wish to rethink the state's strategy in this area.

In addition, the state is a typical "declining middle" state in terms of wages, generating a lot of very well-paying jobs and an even larger number of jobs that pay close to minimum wage and often have no opportunity for advancement for those who perform very well. While attention has been focussed on the "high tech" aspects of job growth, the facts, for the nation and for Virginia, are otherwise. While the percent of growth has been good for the high tech fields, the number of new jobs produced in Virginia has favored the low end of the wage scale. In January, 1990, the Metropolitan Washington Council of Governments released the data shown in Figure 1 for the number of jobs produced in the Washington, D.C. metropolitan area from 1985-2000.

With a couple of exceptions, these jobs represent the low end of the wage scale, with little academic training

Figure 1
Jobs Produced In the Washington, D.C.
Metropolitan Area



Metropolitan Washington Council of Governments, January 1981.

required to perform them. There is no reason to think that the Virginia component of this list would vary much from that in the Washington, D.C. metropolitan area.

While agriculture is still a viable part of the Virginia economy, the state is not driven by it as in the past. In addition, there is an incredible number of very small farms in Virginia, which are either tax dodges or suburban farm acres in the process of being converted to real estate. The cash crops of the state are those of typical southern states, although neither tobacco nor cotton is dominant.

Finally, the data make crystal clear that Virginia has a major road problem. The state has a very small number

The state has a very small number of miles of roadway, and a very large number of licensed drivers who are driving an even larger number of cars a very large number of miles each year.

of miles of roadway, and a very large number of licensed drivers who are driving an even larger number of cars a very large number of miles each year. The numbers speak for themselves. Given the state's difficulty in achieving consensus, it is important to remember that more than 20 new road systems have been authorized and approved but not built in Virginia during the last 20 years. Most of these have been in the northern half of the state.

Without some very quick thinking in Richmond, Virginia could have gridlock in the Washington D.C. suburbs that could rival that of Los Angeles. Only the very high use of carpools and public transportation systems like METRO in the Washington area has kept the situation possible. Remember that in registered autos per 1,000 residents, California ranks 21st and Virginia ranks FIFTH! In vehicle miles per licensed driver, California ranks 24th and Virginia ranks SEVENTH! Anyone like the author who has lived in both states can testify to the danger of ignoring the ominous signs that in terms of traffic, Northern Virginia has already become Los Angelized, and that Norfolk and Richmond may not be far behind. The state's ability to attract "high tech" industry will be severely reduced if gridlock and overpriced housing become the norm in Northern Virginia.

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Coming as they did from a highly aristocratic state whose "citizens" were a small, well-educated elite, while most of the workers were slaves or poorly educated whites, Virginia's heroes—Jefferson, Davis, Mason, Henry—would probably be most amazed at today's average Virginia citizen, far more sophisticated and affluent than could be imagined during the Confederacy. The development of a dominant middle class since World War II has transformed Virginia in truly remarkable ways. Essential to this transformation was the development of a public system of education that could provide the resources needed for a modern, diversified economy. Let's now have a look at today's educational system.

EDUCATION IN VIRGINIA

In a state with a large increase in the number of jobs, the availability of workers with skills to do these jobs is

Table 1
Virginia's Educational System

	1983-1984	1988-1989
School Enrollment:		
Elementary	588,476	628,445
Secondary	377,634	353,636
Total	966,110	982,081
Per Pupil expenditure (VA)	\$ 2,967	\$ 4,744
Per Pupil expenditure (U.S.)	\$ 3,173	\$ 4,509
Teacher Salary (VA)	\$19,867	\$29,056
Teacher Salary (U.S.)	\$22,019	\$29,567
Funding Source:		
Federal	6.6%	4.6%
State	43.0%	34.6%
Local	50.4%	60.7%
Student-Teacher Ratio	17.8 to 1	16.3 to 1
Student-Staff Ratio	9.8 to 1*	8.6 to 1
Per Capita Income, 1987	\$16,517	
Rank	11th	
Minority Percentage of School Enrollment, 1986	28%	
American Indian (as a percent of total enrollment)	0%	
Asian	3%	
Hispanic	1%	
Black	24%	
Handicapped Enrollment, 1988	10.8%	Rank 30th
Poverty Rate, Age 0-15 Years	14.4%	21st
Graduation Rate, 1987	74.0%	25th
Scholastic Aptitude Test (SAT) Score, 1988	902	8th (of 22 states)
Advanced Placement of Seniors	16.2%	7th

*For the school year 1982-83.

Source: U.S. Department of Education "Wall Chart," 1989, and National School Board Association, "Education Vital Signs, 1989."

a prime concern. Additionally, Virginia's population is expected to continue to increase, although at a lower rate, during the next decade, making the educational system equally important in the 1990s. The data in Table 1 above gives us something to think about.

Several things are immediately apparent from these numbers. First, although the state's secondary school enrollments declined during the eighties, the increases in elementary school more than made up for these declines,

throwing the state into a net gain in total enrollments. The future will mean a steady increase in total enrollments as the growing elementary population works its way through the system. (But for a few more years, some superintendents will be firing high school teachers while they are hiring elementary school teachers.)

Second, during the eighties, Virginia increased its effort to fund schools more than the nation did, moving from behind the national average to over the per pupil average

in 1988-89. Teachers salaries also benefitted, but to a lesser degree, due perhaps to increased construction budgets for new buildings, especially at the elementary level. In addition, Virginia is one of the few states that increased the percentage of funding from local districts and declined in state funding percentage. (In many other states, increased state contributions to education have meant increased state control over policy decisions, based on the Golden Rule—he who has the gold makes the rule. That is not the case in Virginia.)

To get a sense of what classes are like, the student-faculty ratio is useful, even though it is not an exact measure of class size. (While the Virginia average is about 17 students per class, California, the state with the biggest growth in student populations and the most diversity, has an average of 23 students per class. It will cost California more than \$10 billion just to get down to the national average where Virginia is now.)

What amazes most foreigners and a number of Americans is that while our student-FACULTY ratio is 16.3 to 1, our student-STAFF ratio (teachers plus other adult school employees) is 8.6 to 1 in Virginia! And Virginia is no different from all other states in having one nonteaching adult on the school staff for EVERY teacher. There is very real debate on whether or not these salaries for nonteachers are justified. Parents of a high school junior will want to make sure that the high school has a good college counselor who can get their child into a good college; parents of every handicapped child will want the best special education program available; every parent of a child living more than a few blocks from the school will want bus service; and because kids live so far away from their school they must have cafeterias in schools to serve them lunch. (In France, by contrast, almost all children go home for lunch.)

We need to face the fact that student diversity requires a large number of adults, some of whom are not teachers. The debate should be over which functions should be met by the schools in the form of paid adult workers. In addition, the number of consultants, curriculum specialists who do not teach, assistant and associate superintendents, assistant principals, secretaries, bus drivers, cooks, et al., is very large indeed. But as even more women join the work force, as they will, the pressure will be on the schools to provide even more services, like staying open until five to care for the kids until parents can get home from work. Virginia is a state with a large number of kids who are from either working couple homes or single parent homes. (The Population Reference Bureau estimates that in 1987, 325,000 of the 1.5 million children in Virginia were in single parent homes.)

When one thinks of "level of effort" in education, one thinks of how much of people's tax money gets spent on education. Virginia, which is 11th in per capita income, ranked 42nd in education expenditures as a percent of per capita income. For the large number of adults in Virginia without children in the public schools, education expenditure is not number one on their priority list. As population growth slows somewhat in the coming decade, we can expect a decline in interest in public schools in Virginia.

The kinds of taxpayer's revolts that have been visible throughout the state in early 1990 on property tax increases, particularly increases in home assessments, certainly suggest that increased support for more school funding will be tough to come by, even in districts with an increased number of kids to educate.

While the minority percentage of Virginia's students would be expected to be large, it is in fact below the national average—27 percent in Virginia compared to 30 percent for the nation. As we look to the future, it is clear that Virginia's minority populations will continue to be behind the nation (see Table 2).

Table 2
Minority Youth
Virginia and the United States Compared

	1990	2000	2010	Net change
Virginia	28.5%	29.4%	31.1%	+ 2.6%
U.S.	30.7%	34.0%	38.2%	+ 7.5%
Total VA. Youth	1.48M	1.60M	1.54M	+ 4.3%
Total U.S. Youth	64.0M	65.7M	62.6M	- 2.2%

Source: *American Demographics*, May 1989.

Several things are of interest here. First, 34 states will show declines from 1990-2010 in their youth population, even though there are gains from 1990-2000. After 2000, the "Boomlet" will have worked its way through the schools, leaving a steadily declining youth population behind during the next century. In the year 2010, by the way, our largest states—California, New York, Texas, Florida, plus a number of others—will have minority youth populations that are more than half of all youth in the state, bringing up a new question: what do we call "minorities" when they are more than half of the population being considered?

In the case of Virginia, the crucial thing may be the increasing diversity of minority populations, and not just in Northern Virginia. Most of the state's metro areas can expect increasing ethnic diversity, particularly Hispanics, Asians, and many more people from the Middle East. The black population will show little increase in Virginia.

As we try to find quality indicators for Virginia's schools, we can look at the graduation rate—74 percent of Virginia's sophomores graduated "on time" in 1987, compared to 71 percent for the nation. While this is a somewhat favorable rating, it means that about one quarter of Virginia's young people begin adult life without the minimal economic benefits of a high school diploma. The vast majority of these young people will end up in minimum wage jobs, which at current rates pay about \$7,500 a year for full-time work. It is not clear what kind of housing or car one can afford at that level, nor can one get married or begin a family. Thus a quarter of Virginia's future begins adulthood, at best, as members of the

"working poor." At worst, remember that 82 percent of America's prisoners are high school dropouts, and that each prisoner costs the American taxpayer over \$20,000 a year to maintain. No one in Virginia benefits by having a young person drop out of high school, least of all the taxpayer.

For those young people that do graduate, there is some evidence that the level of academic performance is quite high. Although as a measure it has limits, the average SAT score for Virginia seniors was 902 in 1988, the 8th highest of the 22 states that use the SAT. In addition, 65 percent of Virginia's seniors actually take the test, indicating that the numbers reflect the ability level of a majority of Virginia seniors. Another good measure of "high end" performance is the percentage of students taking Advanced Placement (AP) courses. In Virginia, 16 percent of all seniors have taken AP courses, the 7th highest rate in the nation. At the present time, AP test scores are not available by state.

By and large, Virginia is a state that could afford to increase its resource base for public schools during the next decade, as the number of youth will be increasing. But it is not likely to happen as other economic consequences of the state's growth patterns begin to emerge, and other funding priorities (roads, health care, crime and property tax relief, just for starters) begin to build larger voter support.

In addition, there is a vast range in the state in terms of economic resources per student, and because such a high percentage of resources are derived locally, some students in Virginia will have very little spent on them, while other areas will have a great amount. If the discrepancies get too large, Virginia may have to worry about legal actions similar to those in Kentucky and Texas, in which the state's entire system of public education has been dismissed as inequitable. It is likely that more such suits will occur during the coming decade.

Another factor of importance to Virginia's future concerns the national increase of affluent black families, families with incomes over \$50,000 a year. The number of U.S. black families at this level jumped from 212,000 in 1967 to 764,000 in 1987—a 360 percent increase. (Income is in constant 1987 dollars. See *American Demographics*, November, 1989 for further discussion.) The Washington, D.C. area has more than twice the national average of affluent black households, both in the core city and in the Virginia-Maryland suburbs. Black suburbanization has also increased at a very rapid rate since 1982 in the Virginia suburbs of D.C. These wealthy black families are first generation wealthy—they make money "the old fashioned way," by earning it. However, they will pass some of it on to their children, and they will not want their children to go to college—they will want their children to go to YALE. The difference between wanting your kids to go to college and wanting your kids to go to Yale or Harvard is one generation in the suburbs.

The growth of the black middle class in Virginia—Norfolk and Richmond as well as the Washington area—is one of the most important and optimistic factors in Virginia's development. Although it separates middle

income blacks from others in poverty, it will provide successful role models for black youngsters, just as Governor Wilder will do. However, the negative side of the same picture represents the increased difficulty black families have in getting out of poverty compared to whites. The conversion of Virginia to a middle-class majority state since WW II has been primarily a matter of education and jobs—education not only for the existing Virginia population, but the fact that people migrating to Virginia had higher education levels, usually paid for by the "sending" state. If growth rates do slow down in the 1990s, Virginia will have to focus more energy and resources on increasing the educational attainments of its EXISTING citizens rather than counting on more PHD's from other states to move here and increase the work skills of Virginia. And this means widening the entry way to the middle class through increased educational opportunities for every Virginian.

HIGHER EDUCATION IN VIRGINIA

Our discussion would not be complete without a few comments about Virginia's colleges and universities. To begin, there has been a major increase in the status granted to many Virginia institutions which were considered "safe schools" in the 1960s but today are as selective as any in the nation. As the *Chronicle of Higher Education's* "Almanac" of September 6, 1989 put it, "It says something about Virginia when the biggest controversies affecting public colleges and universities arise because people are fighting to get into them." Things were all right when only VIRGINIANS wanted to attend, but increasing applications from outside the state have created some major political tensions.

The state has been engaged in a serious long-range approach to higher education planning—the work of the Commission on the University of the 21st Century is just one major example. Institutional autonomy is a deeply valued principle in Virginia, allowing the Boards of Visitors of each four-year campus a great deal of control. The State Council of Higher Education for Virginia is a highly respected coordinating board which publishes some of the best analytical studies around, but its political muscle on campuses is not strong, leading to a question for the Wilder administration—how does the strategic plan for higher education in Virginia get implemented?

Virginia's higher education system has everything—William and Mary College, founded before the American Revolutionary War, The University of Virginia, highly selective and the traditional place for the sons (and daughters) of Virginia's elite to be educated, George Mason University, working hard to parallel the enormous growth in educational needs in the Northern Virginia area as it seeks national prestige simultaneously, the University of Richmond, already the university of the city and now increasing in mission and quality, Virginia Polytechnic Institute, one of the major resources in the nation for science and engineering, the increasingly popular James Madison campus, the highly regarded traditionally black

Table 3
Virginia's Higher Education

Public Four-Year Institutions	15
Public Two-Year Institutions	24
Private Four-Year Institutions	32
Private Two-Year Institutions	8
Total Institutions	79
Vocational Institutions	191
Student Enrollment:	
Public Four-Year Institutions	151,589
Public Two-Year Institutions	123,994
Private Four-Year Institutions	42,011
Private Two-Year Institutions	1,432
Women Students (as a percent of all students)	55.9%
Minority Students (as a percent of all students)	17.6%
Percent of Entering Students from Virginia	75.0%
Number of Full-Time Faculty (public Institutions)	8,275
Percent with Tenure	52.2%
Percent Female	27.8%
Number of Full-Time Faculty (private Institutions)	1,795
Percent with Tenure	58.9%
Percent Female	29.1%
Average Tuition and Fees (public four-year)	\$2,070
Average Tuition and Fees (public two-year)	\$ 775
Average Tuition and Fees (private four-year)	\$5,724
Average Tuition and Fees (private two-year)	\$4,644
State Funds for Higher Education Operations	\$1,033,096,000
Percent Change (last two years)	+ 15%

Source: *Chronicle of Higher Education*, September 6, 1989.

institutions of Hampton, Norfolk State and Virginia State plus a thriving state system of community colleges. As the state's population has grown in size and complexity, so has the state's higher education system. (Indeed, population growth is usually a prerequisite for higher education growth. In addition, financial support for higher education in Virginia has been increasing because the state's economy has grown during the 1980s.) Table 3 above provides a look at the system itself.

Several things stand out in these data. First, the state has developed a diversified set of institutions, rather well

dispersed throughout the state. Second, the state is unique in the southeast in terms of the large percentage of student residents of other states who came to Virginia to study. Third, the cost of a college education in Virginia is low, particularly in terms of perceived quality, which is high. This is true for both public and private institutions, and may explain some of the appeal for residents of other states. Fourth, the percentage of women faculty is very low. There is also a small percentage of the faculty with tenure. Fifth, the state has been rather generous in its support of higher education, perhaps more than its sup-

port of Virginia's public schools. Finally, although improvements have been made, the state can do much more about attracting more minority students into higher education with the express goal of GRADUATING them. (The retention program at William and Mary is just one example of attempts to achieve this goal in Virginia.)

As we think of the next decade in higher education, Virginia is likely to get used to constant enrollment growth as a way of paying for higher education. However, after the year 2000 the number of Virginia youth is expected to drop from 1.6 million to 1.5 million by 2010. It is very hard in higher education to accelerate fast for a decade knowing that your foot has to move to the brake pedal. Community colleges may see a peak in their enrollments soon, with a decline in the number of 26-40 year olds, unless they seek out or create new markets for their services. Additional battles may be fought in Northern Virginia as George Mason University seeks to become a "second flagship" in this vital area of higher education

opportunities, a development not smiled upon by the other major university players in the state. Actually, the needs for coordination may increase during the 1990s to a considerable extent in Virginia, particularly in areas where structures are weak—articulation between secondary schools and higher education, and between community colleges and four-year programs.

It is important in understanding Virginia's future to realize that no part of the educational system can be any stronger than the rest of the system allows it to be. If elementary schools decline, higher education cannot expect to improve. In a state which has valued freedom and independence of individuals and institutions since its inception, these issues may increase in importance. **Competition comes easily in Virginia, voluntary coordination—in education, health, housing, transportation and other areas of state services—is much harder to pull off.** Yet, that may be what the state will need in the next decade.

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SUMMARY AND RECOMMENDATIONS

No state has changed more during the post-WW II era than Virginia. The state today is a model of a diverse economy, a well-educated suburban middle-class majority living in metro areas throughout the state, a high level of individual and state wealth and a high level of participation in the work force. Yet, vestiges of the old Virginia can still be found—rural poverty, black citizens not yet able to fulfill their promise, a concern for local autonomy rather than the needs of the state as a whole, poorly coordinated state services and regional conflict within the state. The trick is to appreciate the progress while not slacking off the effort.

The dynamic economic performance in Virginia during the 1980s is due in large part to new things entering the state—especially new skilled workers and new businesses. The state created almost 15,000 new jobs in 1989 alone, a 5.5 percent increase over 1988. Fifty-eight percent of these new jobs were in manufacturing. A number of foreign firms either opened or expanded businesses in Virginia during 1989. During the next decade, people and jobs will continue to enter the state, but at a reduced level. Rather than paying for growth by taxing FUTURE growth, Virginia will have to develop a "pay-as-you-go" pattern of taxation and service delivery. This is particularly important in thinking about the range of demands on the state budget.

1. Compared with other states, Virginia has a small number of miles of roadway and a very large number of licensed drivers who drive an exceptionally large number of cars a large number of miles each year. In vehicle miles per driver, California ranks 24th while Virginia ranks SEVENTH. Although Northern Virginia suffers the most from planned, authorized and unbuilt road projects over the last twenty years, most metro areas in the state are vulnerable to gridlock. Given the lack of succession of the governor, a plan needs to be developed for this area which will transcend gubernatorial shifts. The major responsibility for this must rest with the legislature.
2. One of the most encouraging aspects about Virginia's last decade was the clear emergence of the black middle class. While the numbers are not exact, one look at suburban Virginia in most of its metro areas will reveal suburban blacks, well-educated, making a good living and anxious that their kids do even better. While some newly affluent black families may feel guilty about deserting their heritage, the fact is that a door is finally opened, and it must now be opened even wider. This means higher graduation rates for minority students in Virginia's schools and colleges, more support of black-owned small businesses, and more support for adults who do not possess a high school diploma but would like to by participating in GED type programs.
3. The state needs a clear policy on "high tech" development, and how the state's many resources in this field can be maximized. There are many alternative strategies to the one used in the 1980s—everyone competes and the best ONE will be selected. Rather than playing zero-sum political games with the problem, it would be better to establish where the state wants to go in the areas of technology, then nourish the RANGE of resources in the state that can collectively reach the goal.
4. While high school graduation rates are a little above the U.S. average, one fourth of Virginia's youth still enter adult life without a high school diploma, marking them for membership among the "working poor" or worse. (Remember that 80 percent of Virginia's prisoners are high school dropouts.) Large inequities exist between per student spending in the wealthy suburbs of Washington and the areas of urban and rural poverty. These inequities need very special attention in order to avoid court decisions similar to those of Kentucky and Texas.
5. Virginia's higher education system has become highly desirable to students from outside the state. Yet potential budget shortfalls during 1990 may force a hard decision on how open the state's colleges and universities should be to outside students compared to the state's responsibility to "grow their own." In the Virginia tradition of institutional autonomy, campus aspirations for "greatness" may well conflict with the state's strategic plans for higher education's development, a real test of the state's ability to coordinate higher education's future.
6. While Virginia's job growth has been commendable during the 1980s, the "declining middle" problem—the creation of many well-paying jobs and many minimum wage jobs, with few in the middle of the economic range—is likely to become a problem in the 1990s. In addition, the relatively young work force, now in its peak earning years, may begin to retire early, resulting in a less skilled labor pool. Attention needs to be paid, not just to the number of jobs created, but the range of incomes, and the chances of "moving up through the chairs" particularly in jobs in the service sector. If the American dream is to be kept alive and well, hard work must be rewarded with promotions and responsibility. Yet the two jobs created most often in 1989—cashiers and janitors—have few possibilities for reward for exceptional performance.
7. As population and job growth slows in the 1990s the state can plan even better for the kind of work force and job structure it would like to have. While these considerations need to be fed into the state's educational system, it is also important to understand that education has an additional job—to produce intelligent and knowledgeable adults who will make good decisions as workers, as family members and in the voting booth.